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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,284	12/15/2003	Steven L. Albrigo	03815.1620	1765

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EXAMINER

RIVELL, JOHN A

ART UNIT PAPER NUMBER

3753

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/734,284

Applicant(s)

ALBRIGO, STEVEN L.

Examiner

John Rivell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/03 (application).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 1930 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. §102 (b) as being anticipated by Krijger.

The patent to Krijger discloses an “air exchange assembly (merely a name given the claimed device. Further, the device of Krijger is clearly capable of performing with “air” as the fluid) comprising: a (inherent) lower supply duct having a first lower supply duct end and a second lower supply duct end (connected to the inlet of supply tube 9), said first lower supply duct end connected to an (inherent) external cooling unit (supplying the cooling fluid); a bottom cap (in outline in figure 1 identical to the upper cap 8 but at the bottom) attached to said second lower supply duct end (at the inlet to tube 9); an upper supply elbow (fig. 2, read at chamber 13) mounted on a rotatable plate (8) and (fluidly) connected to said bottom cap creating a first passage (within tube 9) from said second lower supply duct end to said upper supply elbow (13) through said bottom cap; an (inherent) upper supply duct having a first upper supply duct end and a second upper supply duct end, said first upper supply duct end connected to said upper supply elbow (13) and said second upper supply duct end connected to a device (rotating heat exchanger 11, fig. 1) to be cooled; an (inherent) upper return duct (partially shown at 15) having a first upper return duct end and a second upper return duct end, said first upper return duct end connected to the device (11); an upper return plenum (chamber 14) connected to said rotatable plate (8) and connected to said

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second upper return duct end (at 16); a second passage (within inner conductor 2 but outside of tube 9) connected to said upper return plenum (14); a (inherent) lower return plenum connected to said second (annular) passage creating a passage from said upper return plenum (14) to said lower return plenum; and a (inherent) lower return duct having a first lower return duct end and a second lower return duct end, said first lower return duct end connected to said lower return plenum and said second lower return duct end connected to the (inherent) external cooling unit" to receive the returned cooling fluid, as recited in claim 1.

Regarding claim 2, in Krijger, "a slip ring assembly (as defined on page of the instant specification as an inner 36 and outer 38 bodies; in Krijger inner tube 9 and outer tube 2) forming part of said first passage" as recited.

Regarding claim 3, in Krijger, said slip ring assembly is rotatable" as recited.

Regarding claim 4, in Krijger, "said second passage (inside of tube 9 and inside of tube 2) is an annular passage" as recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-11, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krijger.

The patent to Krijger discloses all the claimed features with the exception of having "air" as the heat exchange fluid.

However, Official Notice is hereby taken that it is widely known and notoriously old in the art to employ forced air heating and/or cooling systems. Utility in buildings, such as personal and public, to disseminate heated and/or cooled air for the purpose of occupants comfort are but one example of the widely known utility of such systems.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Krijger air as the heat exchange fluid for the purpose of heating and/or cooling the radar heat exchanger 11 as is widely known and notoriously old as exemplified by known forced air heat and cooling systems. Additionally, while the advantage of increased heat exchange capability may be diminished by the use of air as opposed to liquid, the tradeoff comes as structural in that minimal air leakage, as opposed to minimal liquid leakage, is negligent. The remaining limitation follow the analysis set forth above concerning claims 2-4.

Claims 5-7, 12-14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krijger in view of Ringell.

The patent to Krijger discloses all the claimed features with the exception of having an "additional upper return duct and... plenum (and) a third passage" conducting fluid to and from the rotating "device to be cooled".

The patent to Ringell discloses that it is known in the art to employ plural supply passages, such as at 4 and 5 to supply and 17 and 19 to return fluid from a rotating object to a stationary source for the purpose of supplying and returning fluid from a stationary source to a rotating object through plural paths.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Krijger plural upper ducts and chambers for the purpose of supplying fluid to the heat exchanger 11 through plural paths as recognized by Ringell.


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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Rivell
Primary Examiner
Art Unit 3753

j.r.